REMARKS

In accordance with Applicants' duty to provide a summary of an interview, Applicants submit that an interview with Examiner Betit occurred on September 18, 2009. Applicants' representative presented a proposed claim amendment, and discussed the differences between the claimed invention and the disclosures Chi et al. ("Context Query in Information Retrieval," Tools with Artificial Intelligence, 2002, 14th IEEE International Conference) (hereinafter "CHI") and Pant et al. (U.S. Patent No. 6,012,053) (hereinafter "PANT"). The Examiner indicated that the proposed claim language appears to overcome the rejection based on CHI and PANT.

In the final Office Action, the Examiner rejected claims 1-5, 7, 10, 12, 14, 17-20, and 22-28 under 35 U.S.C. § 103(a) as unpatentable over CHI in view of PANT; and rejected claim 8 under 35 U.S.C. § 103(a) as unpatentable over CHI, PANT, and Mukherjee et al. ("Automatic Discovery of Semantic Structures in HTML Documents," International Conference on Document Analysis and Recognition, 2003) (hereinafter "MUKHERJEE").

Applicants propose amending claims 1, 2, 7, 10, 12, 22, and 25 to improve form. Claims 1-5, 7, 8, 10, 12, 14, 17-20, and 22-28 remain pending. Applicants traverse the Examiner's rejections under 35 U.S.C. § 103.

REJECTION UNDER 35 U.S.C. § 103 BASED ON CHI AND PANT

In paragraph 3 of the final Office Action, the Examiner rejected claims 1-5, 7, 10, 12, 14, 17-20, and 22-28 under 35 U.S.C. § 103(a) as allegedly unpatentable over CHI and PANT. Applicants traverse the rejections.

Independent claim 1, for example, is a method, performed by one or more server devices, that comprises identifying, using a processor of the one or more server devices, an implicitly defined semantic structure in a document, where a plurality of rules are associated with the implicitly defined semantic structure, and where the semantic structure includes a list having a header and a plurality of items associated with the header; determining, using a processor of the one or more server devices, a location of a first term and a location of a second term within the list; selecting, using a processor of the one or more server devices, one of the plurality of rules, as a selected rule, based on a relationship of the locations of the first and second terms within the implicitly defined semantic structure, where a first rule of the plurality of rules is selected when the first term is located in one of the plurality of items and the second term is located in a different one of the plurality of items, where a second rule of the plurality of rules, different than the first rule, is selected when the first term is located in one of the plurality of items and the second term is located in the same one of the plurality of items, and where a third rule of the plurality of rules, different than the first rule and the second rule, is selected when the first term is located in the header and the second term is located in one of the plurality of items; determining, using a processor of the one or more server devices, a distance value, reflecting a distance between the first and second terms, using a function based on the selected rule, where the function differs based on whether the selected rule corresponds to the first rule, the second rule, or the third rule; and outputting, using a processor of the one or more server devices, the distance value to rank

the document for relevancy to a search query that includes the first term and the second term.

CHI and PANT, whether taken alone or in any reasonable combination, do not disclose or suggest one or more of the features recited in claim 1. For example, CHI and PANT do not disclose or suggest determining, using a processor of the one or more server devices, a distance value, reflecting a distance between first and second terms, within a list having a header and a plurality of items, using a function based on a selected rule, where the function differs based on whether the selected rule corresponds to a first rule, a second rule, or a third rule, where the first rule is selected when the first term is located in one of the plurality of items and the second term is located in a different one of the plurality of items, where the second rule is selected when the first term is located in one of the plurality of items and the second term is located in the same one of the plurality of items, and where the third rule is selected when the first term is located in the header and the second term is located in one of the plurality of items, as recited in claim 1.

The Examiner alleged that CHI discloses the second and third rules, and cited rules 1, 5, and 6 of CHI for support (final Office Action, page 3). The Examiner admitted that CHI does not disclose the first rule and alleged that PANT discloses the first rule and cited column 2, lines 4-24, and column 12, lines 33-50, of PANT for support (final Office Action, page 3). The Examiner also admitted that CHI does not disclose or suggest determining a distance value between the first and second terms using the selected rule, and alleged that PANT discloses this feature and cited column 2, lines 4-24, of PANT for

support (final Office Action, page 3). Applicants submit that the disclosures of CHI and PANT provide no support for the Examiner's allegations.

Even assuming, for the sake of argument, that CHI can reasonably be interpreted as disclosing the second and third rules (a point that Applicants do not concede), CHI does not disclose or remotely suggest determining a distance value, reflecting a distance between first and second terms, using a function based on the second or third rules. CHI is directed to context inclusion using an "in" operator that defines whether a particular term is in the context of another term (section 1, paragraph 3). CHI discloses that when a user specifies a query with two terms connected by the "in" operator, the search of one term is conducted within the context of the search of the other term (section 3, paragraph 1). CHI discloses that using the "in" operator is beneficial when a term has different meanings in different contexts (section 3, paragraph 2).

CHI defines rules for determining whether two terms have a context inclusion relationship (section 4). While one of these rules deals with a list (rule 5), these rules have absolutely nothing to do with determining a distance value reflecting a distance between first and second terms, as required by claim 1. Rather, CHI explicitly discloses that these rules are used to determine "when and how context inclusion occurs" (section 4, paragraph 1). Thus, CHI does not disclose or remotely suggest anything relating to determining a distance value, reflecting a distance between first and second terms, within a list having a header and a plurality of items, using a function based on a selected rule, let alone determining, using a processor of the one or more server devices, a distance value, reflecting a distance between first and second terms, within a list having a header

and a plurality of items, using a function based on a selected rule, where the function

differs based on whether the selected rule corresponds to a first rule, a second rule, or a

third rule, where the first rule is selected when the first term is located in one of the

plurality of items and the second term is located in a different one of the plurality of

items, where the second rule is selected when the first term is located in one of the

plurality of items and the second term is located in the same one of the plurality of items,

and where the third rule is selected when the first term is located in the header and the

second term is located in one of the plurality of items, as recited in claim 1.

At column 2, lines 4-24, PANT discloses:

One factor which may be used to affect the relevance score of an item
includes the location of a search term in the item. For example, with
structured documents such as those written in SGML, HTML, or other
markup languages, the structural information about the document may
enclose search terms and may result in a document being considered more
relevant than another. The position of search terms in the body of a
document, called salience, also may be used. For example, a search term
appearing in the first sentence of the first paragraph of a field in a
document may have greater salience than the same term found in the last
sentence of a last paragraph of the same field. The frequency of
occurrence of a search term in an item, or of the search term in all items,
the number of search terms found in an item, the ordering of search terms
in the item, the distance between terms in a item, and prefixed instance or
stemming are some of the factors which may be used to compute a
relevance score for a given result returned by the search engine. Other
possible factors include, but certainly are not limited to, the recency of the
item or the location of the item within a file system or directory of files.

In this section, PANT discloses that the location of a search term within an item (i.e., a

document) is used to determine the relevance score for the item. PANT discloses that the

position of search terms in the body of an item, the frequency of occurrence of a search

term in the item, the number of search terms found in the item, the ordering of search

terms in the item, the distance between terms in the item, and prefixed instance or

stemming are some factors used to compute the relevance score for the item. While

PANT discloses determining the distance between terms in a document, PANT is

completely silent with regard to the situation where those terms occur within a list having

a plurality of items. Therefore, PANT cannot reasonably disclose or suggest determining

a distance value, reflecting a distance between first and second terms, within a list having

a header and a plurality of items, using a function based on a selected rule, let alone

determining, using a processor of the one or more server devices, a distance value,

reflecting a distance between first and second terms, within a list having a header and a

plurality of items, using a function based on a selected rule, where the function differs

based on whether the selected rule corresponds to a first rule, a second rule, or a third

rule, where the first rule is selected when the first term is located in one of the plurality of

items and the second term is located in a different one of the plurality of items, where the

second rule is selected when the first term is located in one of the plurality of items and

the second term is located in the same one of the plurality of items, and where the third

rule is selected when the first term is located in the header and the second term is located

in one of the plurality of items, as recited in claim 1.

Therefore, even assuming, for the sake of argument, that PANT can reasonably be

interpreted as disclosing the first rule (a point that Applicants do not concede), PANT

does not disclose or remotely suggest determining a distance value, reflecting a distance

between first and second terms, within a list having a header and a plurality of items,

using a function based on the first rule. Rather, PANT discloses computing the distance

between every instance of one word and every instance of the other word of a pair of

words in a search query (col. 12, lines 39-41). Thus, PANT does not disclose or suggest

determining a distance value, reflecting a distance between first and second terms, within

a list having a header and a plurality of items, using a function based on a selected rule,

let alone determining, using a processor of the one or more server devices, a distance

value, reflecting a distance between first and second terms, within a list having a header

and a plurality of items, using a function based on a selected rule, where the function

differs based on whether the selected rule corresponds to a first rule, a second rule, or a

third rule, where the first rule is selected when the first term is located in one of the

plurality of items and the second term is located in a different one of the plurality of

items, where the second rule is selected when the first term is located in one of the

plurality of items and the second term is located in the same one of the plurality of items,

and where the third rule is selected when the first term is located in the header and the

second term is located in one of the plurality of items, as recited in claim 1.

In response to prior arguments presented by Applicants, the Examiner alleged that

PANT discloses:

> adding different scores together based on set user preferences for ranking
> of key terms. This score is a distance value from what the user wants from
> a search phrase, and what the user actually gets within the search results.
> The distance is calculated using different rules to which the user sets the
> importance. Some of these rules can be found in column 2, lines 4-24.
> The score indicates the "relevance for each of the items in the set of search
> results" (see column 2, lines 25-43).

(final Office Action, page 12). Applicants disagree with the Examiner's allegations.

First, Applicants submit that the Examiner's allegation that "distance value" is "what the

user wants from a search phrase" is unreasonable. Claim 1 specifically recites that the distance value reflects the distance between the first and second terms. Further, the "rules," allegedly disclosed by PANT, do not reasonably correspond to rules pertinent to a relationship of the locations of first and second terms within a list, as required by claim 1. Rather, PANT's "rules" merely relate to: (1) the location of a search term within a document (col. 6, lines 36-50); (2) the position of search terms in the document (col. 6, lines 51-57); (3) the frequency of occurrence of a search term in the document (col. 6, lines 58-65); (4) the frequency of occurrence of search terms in all documents (col. 6, line 66 – col. 7, line 5); (5) the number of search terms found in the document (col. 7, lines 6-13); (6) the ordering of search terms in the document (col. 7, lines 15-21); (7) the pairwise distance between search terms in the document (col. 7, lines 22-30); and (8) the length of the search words based on stemming (col. 7, lines 31-43). By stark contrast, claim 1 recites that the first rule is selected when the first term is located in one of the plurality of items and the second term is located in a different one of the plurality of items, the second rule is selected when the first term is located in one of the plurality of items and the second term is located in the same one of the plurality of items, and the third rule is selected when the first term is located in the header and the second term is located in one of the plurality of items. PANT discloses nothing remotely similar to these rules. Thus, the Examiner's allegations lack merit.

Since CHI and PANT are both completely silent regarding determining a distance value, reflecting a distance between first and second terms, within a list having a header and a plurality of items, using a function based on a selected rule, the combination of CHI

and PANT cannot reasonably disclose or suggest determining, using a processor of the

one or more server devices, a distance value, reflecting a distance between first and

second terms, within a list having a header and a plurality of items, using a function

based on a selected rule, where the function differs based on whether the selected rule

corresponds to a first rule, a second rule, or a third rule, where the first rule is selected

when the first term is located in one of the plurality of items and the second term is

located in a different one of the plurality of items, where the second rule is selected when

the first term is located in one of the plurality of items and the second term is located in

the same one of the plurality of items, and where the third rule is selected when the first

term is located in the header and the second term is located in one of the plurality of

items, as recited in claim 1.

For at least these reasons, Applicants submit that claim 1 is patentable over CHI

and PANT, whether taken alone or in any reasonable combination. Claims 2-5 and 7

depend from claim 1 and are, therefore, patentable over CHI and PANT for at least the

reasons given above with respect to claim 1.

Independent claims 10, 12, 22, and 25 recite features similar to features described

above with regard to claim 1. Claims 10, 12, 22, and 25 are, therefore, patentable over

CHI and PANT, whether taken alone, or in any reasonable combination, for at least

reasons similar to the reasons given above with respect to claim 1.

Claims 14 and 17-20 depend from claim 12 and are, therefore, patentable over

CHI and PANT for at least the reasons given with respect to claim 12. Claims 23 and 24

depend from claim 22 and are, therefore, patentable over CHI and PANT for at least the

reasons given with respect to claim 22. Claims 26-28 depend from claim 25 and are, therefore, patentable over CHI and PANT for at least the reasons given with respect to claim 25.

Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection of claims 1-5, 7, 10, 12, 14, 17-20, and 22-28 under 35 U.S.C. § 103 based on CHI and PANT.

REJECTION UNDER 35 U.S.C. § 103 BASED ON CHI, PANT, AND MUKHERJEE

In paragraph 4 of the final Office Action, the Examiner rejected claim 8 under 35 U.S.C. § 103(a) as allegedly unpatentable over CHI, PANT, and MUKHERJEE.

Claim 8 depends from claim 1. Without acquiescing in the Examiner's rejection with respect to claim 8, Applicants submit that the disclosure of MUKHERJEE does not cure the deficiencies in disclosures of CHI and PANT identified above with respect to claim 1. Claim 8 is, therefore, patentable over CHI, PANT, and MUKHERJEE, whether taken alone or in any reasonable combination, for at least the reasons given with regard to claim 1.

Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection of claim 8 under 35 U.S.C. § 103 based on CHI, PANT, and MUKHERJEE.

CONCLUSION

In view of the foregoing amendments and remarks, Applicants respectfully request the Examiner's reconsideration of the application and the timely allowance of the pending claims.

Applicants respectfully request that this Amendment under 37 C.F.R. § 1.116 be entered by the Examiner, placing the claims in condition for allowance. Applicants submit that the proposed amendments do not raise new issues or necessitate the undertaking of any additional search of the art by the Examiner, since all of the elements and their relationships claimed were either earlier claimed or implied in the claims as examined. Therefore, this Amendment should allow for immediate action by the Examiner. Further, this Amendment places the claims in better form for appeal should an appeal become necessary.

As Applicants' remarks with respect to the Examiner's rejections overcome the rejections, Applicants' silence as to certain assertions by the Examiner in the Office Action or certain requirements that may be applicable to such assertions (e.g., whether a reference constitutes prior art, reasons for modifying a reference and/or combining references, assertions as to dependent claims, etc.) is not a concession by Applicants that such assertions are accurate or that such requirements have been met, and Applicants reserve the right to dispute these assertions/requirements in the future.

If the Examiner believes that the application is not now in condition for allowance, Applicants respectfully request that the Examiner contact the undersigned to discuss any outstanding issues.

To the extent necessary, a petition for an extension of time under 37 C.F.R. §

1.136 is hereby made. Please charge any shortage in fees due in connection with the

filing of this paper, including extension of time fees, to Deposit Account No. 50-1070

and please credit any excess fees to such deposit account.

Respectfully submitted,

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